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**FORM PTO-1449**  
**INFORMATION DISCLOSURE STATEMENT BY APPLICANT(S)**

Docket No.: 6872-0001-1  
Applicant: Hiroaki Hara, et al.  
Title: AEROGEL AND METALLIC  
COMPOSITES

U.S. Serial No.: 10/695,214  
U.S. Filing Date: October 28, 2003  
Group Art Unit: 1754

**U.S. PATENT DOCUMENTS**

<u>Examiner's Initials</u>	<u>Patent Number</u>	<u>Patent Date</u>	<u>Name</u>	<u>Class Subclass</u>
<u>ju</u>	5,366,828	11/22/1994	Struthers	429/101
<u>ju</u>	5,425,858	06/20/1995	Farmer	204/149
<u>ju</u>	6,010,798	01/04/2000	Hammerschmidt et al.	429/30
<u>ju</u>	6,440,495 B1	08/27/2002	Wade et al.	427/250

**U.S. Patent Publications:**

ju US 2003/0176277 A1 09/18/2003 Suh, et al. 502/180

**FOREIGN PATENT DOCUMENTS**

<u>Examiner's Initials</u>	<u>Document Number</u>	<u>Date</u>	<u>Country</u>	<u>Translation Yes No</u>
<u>ju</u>	WO 03/057367 A2	07/17/2003	PCT	X

**OTHER DOCUMENTS**

Examiner's  
Initials  
ju

Copy of International Search Report for Serial No.  
PCT/US2004/033082 dated December 7, 2005.

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Examiner's Initials	Patent Number	Patent Date	Name	Class Subclass
<u>fl</u>	5,476,878	12/19/1995	Pekala	521/61
<u>fl</u>	6,005,012	12/21/1999	Hrubesh et al.	521/53
<u>fl</u>	6,010,798	01/04/2000	Hammerschmidt et al.	429/30

FOREIGN PATENT DOCUMENTS

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<u>fl</u>				

OTHER DOCUMENTS

Examiner's  
Initials

fl Copy of "Synthesis and textural characteristics of organic aerogels, transition-metal-containing organic aerogels and their carbonized derivatives" by F. J. Maldonado-Hódar, et al., CARBON 37 (1999), pgs. 1199-1205.

fl Copy of "A new electrocatalyst consisting of a molecularly homogeneous platinum-aerogel nanocomposite" by Siyu Y, et al., Can J. Chem. Vol. 75 (1997), pgs. 1666-1673.

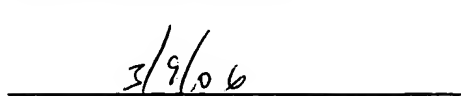
fl Copy of "Morphology and Electrochemistry of Ruthenium/Carbon Aerogel Nanostructures" by J. M. Miller, et al., Department of Materials Science and Engineering, University of California, Los Angeles, Langmuir (1999), Vol. 15, American Chemical Society, pgs. 799-806.

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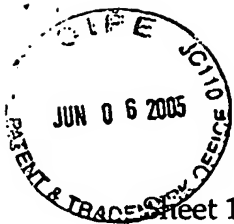


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<u>HC</u>	6,809,060 B2	10/26/2004	Suh, et al.	502/185

**FOREIGN PATENT DOCUMENTS**

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Examiner's Initials	Patent Number	Patent Date	Name	Class Subclass
de	4,044,193	8/23/1977	Petrow, et al.	429/40
	4,469,816	09/04/1984	Armor, et al.	502/333
	4,447,505	5/8/1984	Blanchart	429/42
	4,614,692	9/30/1986	Kajiyama	429/44
	4,832,881	5/23/1989	Arnold, et al.	264/29.7
	5,260,855	11/9/1993	Kaschmitter	361/502
	5,358,802	10/25/1994	Mayer, et al.	429/218
	5,395,705	3/7/1995	Door et al.	429/42
	5,453,169	9/26/1995	Callstrom, et al.	204/242
	5,455,999	10/10/1995	Weiss et al.	29/623.1
	5,529,971	6/25/1996	Kaschmitter, et al.	502/416
	5,601,938	2/11/1997	Mayer, et al.	429/40
	5,607,785	3/4/1997	Tozawa, et al.	429/33
	5,626,977	5/6/1997	Mayer, et al.	429/44
	5,744,510	4/28/1998	Pekala	521/181
	5,789,027	8/4/1998	Watkins, et al.	427/250
	5,851,947	12/22/1998	Hair, et al.	502/258
	5,879,744	3/9/1999	Cao et al.	427/248.1
de	6,010,798	1/4/2000	Hammerschmidt	429/30

**FOREIGN PATENT DOCUMENTS**

Examiner's Initials	Document Number	Date	Country	Translation Yes No
de	56-009970	1/31/1981	JP	Abstract
	56-079858	6/30/1981	JP	Abstract
	57-005266	1/12/1982	JP	Abstract
	58-054563	3/31/1983	JP	Abstract
	59-073860	4/26/1984	JP	Abstract
	59-127372	7/23/1984	JP	Abstract
de	60-077360	5/1/1985	JP	Abstract

	60-065466	4/15/1985	JP	Abstract
	60-070668	4/22/1985	JP	Abstract
	60-133659	7/16/1985	JP	Abstract
	60-133662	7/16/1985	JP	Abstract
	61-039367	2/25/1986	JP	Abstract
	62-051166	3/5/1987	JP	Abstract
	62-217352	11/25/1987	JP	Abstract
	02-226659	9/10/1990	JP	Abstract
	04-118857	4/20/1992	JP	Abstract
	08-022827	1/23/1996	JP	Abstract
	11-003715	6/1/1999	JP	Abstract
	2000-106194	4/11/2000	JP	Abstract
	2000-164224	6/16/2000	JP	Abstract
	00/47319	08/17/2000	WO	
	97/16245	05/09/1997	WO	

### OTHER DOCUMENTS

Examiner's  
Initials

*[Handwritten initials]*

"A new electrocatalyst consisting of a molecularly homogeneous platinum-aerogel nanocomposite", Can J. Chem. 75:1666-1673 (1997) by Ye et al.

"Deposition of Ruthenium Nanoparticles on Carbon Aerogels for High Energy Density Supercapacitor Electrodes", Electrochemical Society Letters, Vol. 144, No. 12, December 1997 by Miller et al.

"Carbon aerogels for electrochemical applications", Journal of Non-Crystalline Solids 225 (1998) 74-80 by Pekala, et al. (1998).

"Aerogel composites using chemical vapor infiltration", Journal of Non-Crystalline Solids 185 (1995) 227-232 by Hunt, et al. (1994).

"Synthesis and textural characteristics of organic aerogels, transition-metal containing organic aerogels and their carbonized derivatives", Carbon 37 (1999) 1199-1205 by Maldonado-Hodar et al.

"Morphology and Electrochemistry of Ruthenium/Carbon Aerogel Nanostructures", Langmuir 1999, 15, 799-806 by Miller and Dunn.

"Monolithic carbon aerogels for fuel cell electrodes", Preparation of Catalysts VII, 1998, 167 by Pajonk et al. (1997).

"Microporous Nature of Ce,Zr-Doped Carbon Aerogels", Langmuir 1999, 15 7119 - 7121 by Bekyarova, et al. (1999).

**OTHER DOCUMENTS (Continued)**

pl  
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\_\_\_\_\_  
pl  
\_\_\_\_\_

"Metal-carbon aerogels as catalysts and catalyst supports", Studies in Surface Science and Catalysis (2000), 130, 1007 by Maldonado-Hodar et al.

"Catalytic Graphitization of Carbon Aerogels by Transition Metals", Langmuir, 2000, 16, 4367 - 4373 by Maldonado-Hodar et al.

"Integration of carbon aerogels in PEM fuel cells", Journal of Non-Crystalline Solids 285 (2001) 283 - 287 by Glora et al. (2001).

Copy of International Search Report of PCT/US02/41205

EXAMINER

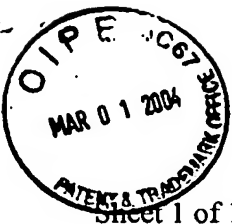
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<u>he</u>	U.S. Pub. No. 2003/0176277 A1	Pub. Date 09/18/2003	Suh, et al.	502/180

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<u>                    </u>				

**OTHER DOCUMENTS**

Examiner's  
Initials

he "Types of Fuel Cells", Fuel Cells 2000, pps. 1-5.

EXAMINER

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